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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/658,161

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Jeyhan Karaoguz

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MCANDREWS HELD & MALLOY, LTD
500 WEST MADISON STREET
SUITE 3400
CHICAGO, IL 60661

EXAMINER

RUSSELL, WANDA Z

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/658,161	Applicant(s) KARAOGUZ ET AL.	
	Examiner WANDA Z. RUSSELL	Art Unit 2416	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 September 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-42 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-42 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. **Claims 1-6, 11-16, 21-26, 31-36, and 41-42** are rejected under 35 U.S.C. 103(a) as being unpatentable over Periasamy et al. (U.S. Patent 6,023,733), in view of Beshai et al. (Pub. No. US 2002/0131363 A1).

For **claims 1, 11, 21, 31, and 41**, Periasamy et al. teach a method, a machine-readable storage (medium) (see 202-206 in Fig. 2A), a system (see Fig. 1) for providing enhanced connectivity (efficient path determination, see title) in a multi-protocol (Data link switching may be implemented on a multi-protocol routers, see col. 4, lines 4-5) network, the method comprising:

aggregating messages of each communication channel (across the communication channel, see col. 1, line 65, and Fig. 2B shows multi ports-channels; data flow path 164-192-190 in Fig. 1, and passing that data ... where the data are sequentially formatted as a frame for delivery onto the channel 180 as bits, see col. 2, lines 21-24. The transmission side is described in this paragraph, and receiving side is symmetrical but in a reverse direction. Note that it is bi-directional communication. The LLC 180 at the source 110 corresponds to the LLC 190 at the destination 150) from a physical layer (see physical 164 in Fig. 1) associated with each of a plurality of protocols

(multi-protocol, see col. 4, lines 4-5) in a single multi-protocol layer of the multi-protocol network (see LLC 180 or 190 in Fig. 1. The LLC is a single multi-protocol layer);

identifying an optimal communication path (it generally must undertake a "route-discovery procedure" to identify the sole or optimal path the message is to travel, see col. 3, lines 28-30) from among said communication channel based on said single multi-protocol layer (specified in the path over the LLC connection to the destination LAN, see col. 3, lines 59-60); and

establishing a communication session using said identified optimal communication path (see Fig. 1).

However, Periasamy et al. fail to specifically teach a multi-band network for this application.

Beshai et al. teach a multi-band network (0051], lines 9-12) for this application.

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine Periasamy et al. with Beshai et al. to obtain the invention as specified, for more efficient network sizing applications.

For **claims 2, 12, 22, 32, and 42**, Periasamy et al. and Beshai et al. teach everything claimed as applied above. In addition, Periasamy et al. teaches comprising determining based on said aggregated messages, whether at least one of said communication channels (it generally must undertake a "route-discovery procedure" to identify the sole or optimal path the message is to travel, see col. 3, lines 28-30; and across the communication channel, see col. 1, line 65, and Fig. 2B shows more ports-channels).

However, Periasamy et al. fail to specifically teach a multi-band network, and a combination of said communication channels and said communication bands for providing said communication session for this application.

Beshai et al. teach a multi-band network ([0100], line 3) and a combination of said communication channels and said communication bands for providing said communication session for this application (from Figs. 1-3 and 5-6, it can be seen that this is a multi-channel (ports), multi-band network).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine Periasamy et al. with Beshai et al. to obtain the invention as specified, for more efficient network sizing applications.

For **claims 3, 13, 23, and 33**, Periasamy et al. and Beshai et al. teach everything claimed as applied above. In addition, Periasamy et al. teach comprising selecting at least one of said communication channels (it generally must undertake a "route-discovery procedure" to identify the sole or optimal path the message is to travel, see col. 3, lines 28-30; and across the communication channel, see col. 1, line 65, and Fig. 2B shows more ports-channels).

However, Periasamy et al. fail to specifically teach a multi-band network, and a combination of said communication channels and said communication bands for providing said communication session for this application.

Beshai et al. teach a multi-band network ([0100], line 3) and a combination of said communication channels and said communication bands for providing said

communication session for this application (from Figs. 1-3 and 5-6, it can be seen that this is a multi-channel (ports), multi-band network).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine Periasamy et al. with Beshai et al. to obtain the invention as specified, for more efficient network sizing applications.

For **claims 4, 14, 24, and 34**, Periasamy et al. and Beshai et al. teach everything claimed as applied above. In addition, Periasamy et al. teach comprising locating said single multi-protocol as a sublayer within a data link layer (see Fig. 1. LLC 180 or 190 is a sub layer of Data Link layer 122 or 162).

For **claims 5, 15, 25, and 35**, Periasamy et al. and Beshai et al. teach everything claimed as applied above. In addition, Periasamy et al. teach comprising interfacing said single multi-protocol layer above a MAC layer (see Fig. 1. LLC 180 or 190 is above MAC layer 182 or 192), said MAC layer interfaced with said physical layer that is located below said MAC layer (see Fig. 1).

For **claims 6, 16, 26, and 36**, Periasamy et al. and Beshai et al. teach everything claimed as applied above (see claim 1, 2, 3, and 4). In addition, Periasamy et al. teach wherein said single multi-protocol layer is a super channel sublayer (see LLC 180 or 190. What the name is just a matter of design choice), said super channel sublayer being said sublayer of said data link layer (see Fig. 1).

3. **Claims 7-10, 17-20, and 27-30, and 37-40** are rejected under 35 U.S.C. 103(a) as being unpatentable over Periasamy et al. (U.S. Patent 6,023,733), in view of Beshai et al. (Pub. No. US 2002/0131363 A1), and Matthews (U.S. Patent 5,521,910).

For **claims 7, 17, 27, and 37**, Periasamy et al. and Beshai et al. teach everything claimed as applied above. However, they fail to specifically teach comprising monitoring at least a portion of said aggregated messages in said single multi-protocol layer by at least one of a network management process, a bandwidth management process, a load balancing process, a session control and a QoS management process.

Matthews teaches comprising monitoring (check, col. 8, line 8 and 6-10) at least a portion of said aggregated messages in said single multi-protocol layer by at least one of a network management process (configuration management, see col. 3, line 24), a bandwidth management process (allocating bandwidth, see col. 1, line 15), a load balancing process (discover neighboring nodes, col. 4, lines 26-30), a session control process (provide data transfer and control, see col. 26, lines 18-19) and a QoS management process (QoS, see col. 3, line 25). (Also see col. 4, lines 39-46).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine Periasamy et al. with Beshai et al., and Matthews to obtain the invention as specified, for more efficient network sizing applications, and for better quality control.

For **claims 8, 18, 28, and 38**, Periasamy et al. and Beshai et al. teach everything claimed as applied above. However, they fail to specifically teach comprising interfacing at least one of said network management process, bandwidth management process, load balancing process, session control process and QoS management process with said super channel.

Matthews teaches comprising interfacing (operate, col. 3, line 23) at least one of said network management process, bandwidth management process, load balancing process, session control process and QoS management process with said super channel (col. 3, lines 16-25, and summary, col. 2, lines 65-col. 6, line 28. All these are through the link layer, therefore through the LLC 180 or 190 layer).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine Periasamy et al. with Beshai et al. and Matthews to obtain the invention as specified, for more efficient network sizing applications, and for better quality control.

For **claims 9, 19, 29, and 39**, Periasamy et al. and Beshai et al. teach everything claimed as applied above. However, they fail to specifically teach comprising extracting channel specific data from said single multi-protocol layer by at least one of said network management process, bandwidth management process, load balancing process, session control process and QoS management process.

Matthews teaches comprising extracting (extracting the key fields, see col. 14, line 66) channel specific data from said single multi-protocol layer by at least one of said network management process, bandwidth management process, load balancing process, session control process and QoS management process (summary, col. 2, lines 65-col. 6, line 28).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine Periasamy et al. with Beshai et al. and

Matthews to obtain the invention as specified, for more efficient network sizing applications, and for better quality control.

For **claims 10, 20, 30, and 40**, Periasamy et al. and Beshai et al. teach everything claimed as applied above. However, they fail to specifically teach comprising sharing channel information acquired by each of said network management process, bandwidth management process, load balancing process, session control process and QoS management process among one or more of said network management process, bandwidth management process, load balancing process, session control process and QoS management process.

Matthews teaches comprising sharing (shared resources, see col. 4, line 48) channel information acquired by each of said network management process, bandwidth management process, load balancing process, session control process and QoS management process among one or more of said network management process, bandwidth management process, load balancing process, session control process and QoS management process (summary, col. 2, lines 65-col. 6, line 28).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine Periasamy et al. with Beshai et al. and Matthews to obtain the invention as specified, for more efficient network sizing applications, and for better quality control.

Response to Arguments

3. Applicant's arguments filed 9/29/2008 have been fully considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to WANDA Z. RUSSELL whose telephone number is (571)270-1796. The examiner can normally be reached on Monday-Thursday 9:00-6:00 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema Rao can be reached on (571) 272-3174. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Kevin C. Harper/
Primary Examiner, Art Unit 2416

WZR/Wanda Z Russell/
Examiner, Art Unit 2416